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AUTHOR Baer, John S.; And Others
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ABSTRACT

Perceived norms are important mediators of social behavior. Social perception, however, is often biased or inaccurate. Recent research has shown that college students overestimate normative drinking rates. This study examined whether this trend continues over time and if students' perceptions of normative drinking are predictive of personal drinking at later points in time. Students (N=159) were given a battery of questionnaires dealing with alcohol use and perceptions of norms at four assessment points over 18 months. Students were assessed in the spring of their senior year in high school, fall of their freshman year in college, spring of their freshman year, and fall of their sophomore year. Results indicated that perceptions of norms decrease overtime while drinking rates increase. Given that perceived norms begin much higher than self-reported drinking rates, biases are thus reduced over time. Nevertheless, perceived norms remain significantly higher than self-reported drinking, and higher than actual norms for the population. Perceptions of norms are significantly predictive of drinking rates at the following assessment, even when prior drinking rates are statistically controlled. Alcohol prevention programming which clarifies and challenges norms may contribute towards reducing risks associated with heavy drinking. (Author/ABL)

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BIASES IN THE PERCEPTION OF NORMATIVE ALCOHOL USE OVER TIME: PERCEIVED NORMS PREDICT FUTURE DRINKING

By

John S. Baer, Ph.D.

Susan Tapert, B.A.

G. Alan Marlatt, Ph.D.

From

Department of Psychology
University of Washington

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ABSTRACT

Recent research has shown that college students overestimate normative drinking rates. This study examines whether this trend continues over time and if students' perceptions of normative drinking are predictive of personal drinking at later points in time. One hundred fifty-nine high-risk university students were given a battery of questionnaires dealing with alcohol use and perceptions of norms at four assessment points over 18 months. Results indicate that perceptions of norms decrease over time while drinking rates increase. Given that perceived norms begin much higher than self-reported drinking rates, biases are thus reduced over time. Nevertheless, perceived norms remain significantly higher than self-reported drinking, and higher than actual norms for the population. Perceptions of norms are significantly predictive of drinking rates at the following assessment, even when prior drinking rates are statistically controlled.

INTRODUCTION 1

Perceived norms are important mediators of social behavior (Bandura, 1986; Fishbein & Ajzen, 1975). For example, perceptions of prevalence of smoking have been associated with onset of smoking in adolescents (Chassin, Presson, Montello, Sherman, & McGrew, 1981). Social perception, however, is often biased or inaccurate. Studies in social perception have indicated a false-consensus effect (Marks & Miller, 1987; Ross, Greene, & House, 1977), referring to the notion that people assume similarity between self and others.

Studies about beliefs in alcohol consumption seem to indicate an overestimation of others' drinking (Baer & Carney, in press; Baer, Stacy, & Larimer, 1991; Baer, Stacy, & Marlatt, 1988). These biases may be caused by motivations to consider oneself better than average and to protect one's ego, or because heavy drinking is a more salient and memorable behavior than moderate drinking. Such biases may influence young people to alter their own drinking patterns to conform to their beliefs of others' drinking (Marks, Graham, & Hansen, 1992).

This study examines whether biased perceptions exist across the transition from high school into college and into the sophomore year. Further, we test whether perceptions of norms predict drinking at later points in time. It was predicted that biased perceptions would decrease across time as students became more familiar with actual drinking practices of college students. Additionally, it was predicted that beliefs in extreme norms would be associated with greater consumption of alcohol at later points in time.

All high school students indicating intent to enter a major western university were mailed screening questionnaires in the spring of their senior year in high school. Of over 4000 questionnaires mailed, 2179 forms were returned and 2041 indicated willingness to be contacted for future research. The top 25% (n=508) were selected as high-risk based on reported consumption of five or more drinks on one occasion in the past month or endorsement of three or more alcohol-related problems from the Rutgers Alcohol Problem Inventory (RAPI; White & Labouvie, 1989). Of these high-risk students, 348 agreed to participate. Half of these were randomly assigned to an intervention and half to a control group. This analysis investigated the 159 control subjects with complete data after the 18-month follow-up assessment (see Baer, Kivlahan, & Marlatt, 1992 for more details on the sample selection protocol).

Students were assessed spring of their senior year in high school (Time 1), fall of their freshman year in college (Time 2), spring of their freshmen year (Time 3), and fall of their sophomore year (Time 4). Strict confidentiality was assured, and subjects were paid for their time. Questionnaires included items about personal drinking quantity ("On a given weekend evening, how much alcohol in drinks do you typically consume? Estimate for over the past month.") and frequency ("How often in the past month did you drink alcohol?") as well as estimates of normative drinking quantity and frequency of an average university student.

PERCEPTIONS OF NORMS OVER TIME

Subjects' perceptions of normative drinking and their own self-reported drinking at four points in time are shown in Figures 1 and 2. The data were analyzed using MANOVA procedure specifying two repeated measures: the target that was rated (2 levels, self vs. typical university student) and time (4 levels, assessment times 1 to 4, see above). Separate analyses for ratings of drinking quantity and frequency revealed significant target by time interactions ($F(3,462) = 21.32$, $p<.000$ for frequency; $F(3,453) = 6.12$, $p<.000$ for quantity). Post-hoc contrasts showed that perceptions of norms deceased gradually over time, while personal consumption increased upon entry into university and remained relatively stable thereafter (although drinking quantity appeared higher each Fall). The combination of trends leads to reduced biases between the perceptions of self and other. Nevertheless, even though the magnitude of the differences was greatly reduced, at time 4 perceived norms remained significantly higher than self-reported drinking. It is noteworthy that these perceptions of norms still are considerably higher than the true norms for college students (about 8-10 drinks per week).

Insert Figures 1 and 2

PREDICTION OF FUTURE DRINKING

Hierarchical regression analyses were performed with self--reported personal drinking as the dependent variable, and previous self-reported personal drinking and previous perceptions of norms as the predictor variables. These analyses were repeated for each follow-up assessment, with prediction from one time period to the next. Drinking quantity and frequency were analyzed separately.

Results of these regression analyses are shown in Tables 1 and 2. The standardized betas reflect the unique predictive contribution of each predictor variable. Controlling for personal drinking at the earlier assessment, regressions indicated that perceived normative quantity was significantly predictive of personal consumption quantity at the following assessment (t=1.88, p=.06 at T1; t=2.54, p=.012 at T2; t=2.97, p=.003 at T3; see Table 1). Perceived normative frequency did not predict later frequency of drinking with a similar magnitude; prediction at time 1 was not significant, and prediction at Times 2 and 3 only approached statistical significance (t=0.64, ns at T1; t=1.64, p=.104 at T2; t=1.81, p=.073 at T3; see Table 2).

Table One

Time Lagged Predictions of Drinking Quantity from Prior Drinking and Perceived Normative Quality

	beta	t	p
PREDICTORS OF QUANTITY AT T2			
Quantity T1	0.45	6.58	.000
Perceived Norm T1	0.13	1.88	.060
PREDICTORS OF QUANTITY AT T3			
Quantity T2	0.45	6.25	.000
Perceived Norm T2	0.18	2.54	.012
PREDICTORS OF QUANTITY AT T4			
Quantity T3	0.50	7.03	.000
Perceived Norm T3	0.21	2.97	.003

Table Two

Time Lagged Predictions of Drinking Frequency from Prior Drinking and Perceived Normative Frequency

	beta	t	p
PREDICTORS OF FREQUENCY AT T2			
Frequency T1	0.32	4.27	.000
Perceived Norm T1	0.05	0.64	ns
PREDICTORS OF FREQUENCY AT T3			
Frequency T2	0.43	5.92	.000
Perceived Norm T2	0.12	1.64	.104
PREDICTORS OF FREQUENCY AT T4			
Frequency T3	0.45	6.14	.000
Perceived Norm T3	0.13	1.81	.073

While actual drinking increased from spring of the senior year in high school to fall of the sophomore year in college, perceptions of normative drinking rates decreased. Thus, the bias of reporting that others drink more than oneself decreases over time. This effect may be due to students' increased drinking upon entry to college: their drinking may approach their previously perceived norm. Also, experiences on campus, such as observing actual university drinking situations, may influence beliefs in exaggerated norms to decline over time. Overestimation of norms has been posited as a means of justifying one's own behavior by considering oneself safely below the norm (Baer & Carney, in press; Baer, Stacy, & Larimer, 1991). It is possible that the need to justify one's behavior may decrease across time as students mature and become more comfortable with their own behavior.

The predictive nature of perceived norms on later drinking has not been demonstrated previously. The data reported here suggest that these beliefs, although biased, may constitute an important risk factor for heavy drinking in young adults. Students may base their perceptions of norms on the behaviors of those they associate with most, and their own drinking may come to approximate that of their peers. Thus, perceptions of norms may reflect peer group drinking rates and peer influence. Alternatively, perceived norms may constitute a more unique risk factor. Students may feel pressured to drink to the extent that they believe others do, regardless of what others actually do.

These results have implications for clinical programming with young adults (c.f., Perkins & Berkowitz, 1986). Many problems are associated with college drinking, including driving accidents, legal difficulties, disruption of school work, and health concerns. Beliefs in exaggerated norms could cause an individual to feel safely below the norm and resist prevention efforts, or it could cause a person to feel socially pressured to drink to potentially dangerous blood alcohol levels. Alcohol prevention programming that clarifies and challenges norms may contribute towards reducing risks associated with heavy drinking.

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Self-Reported Drinking Quantity and Perceived Normative Drinking Quantity Consumed on a Typical Weekend Evening

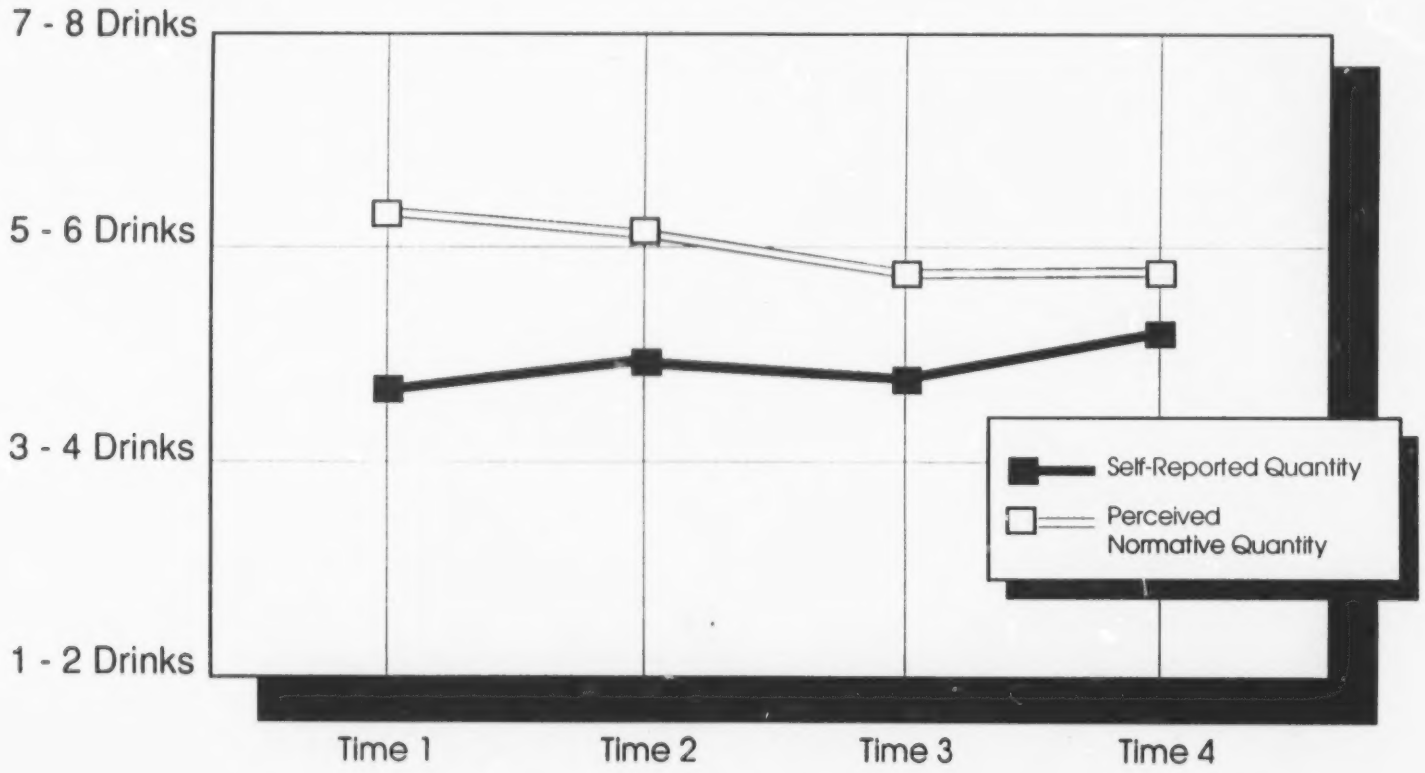

Figure One

Self-Reported Drinking Frequency and Perceived Normative Drinking Frequency

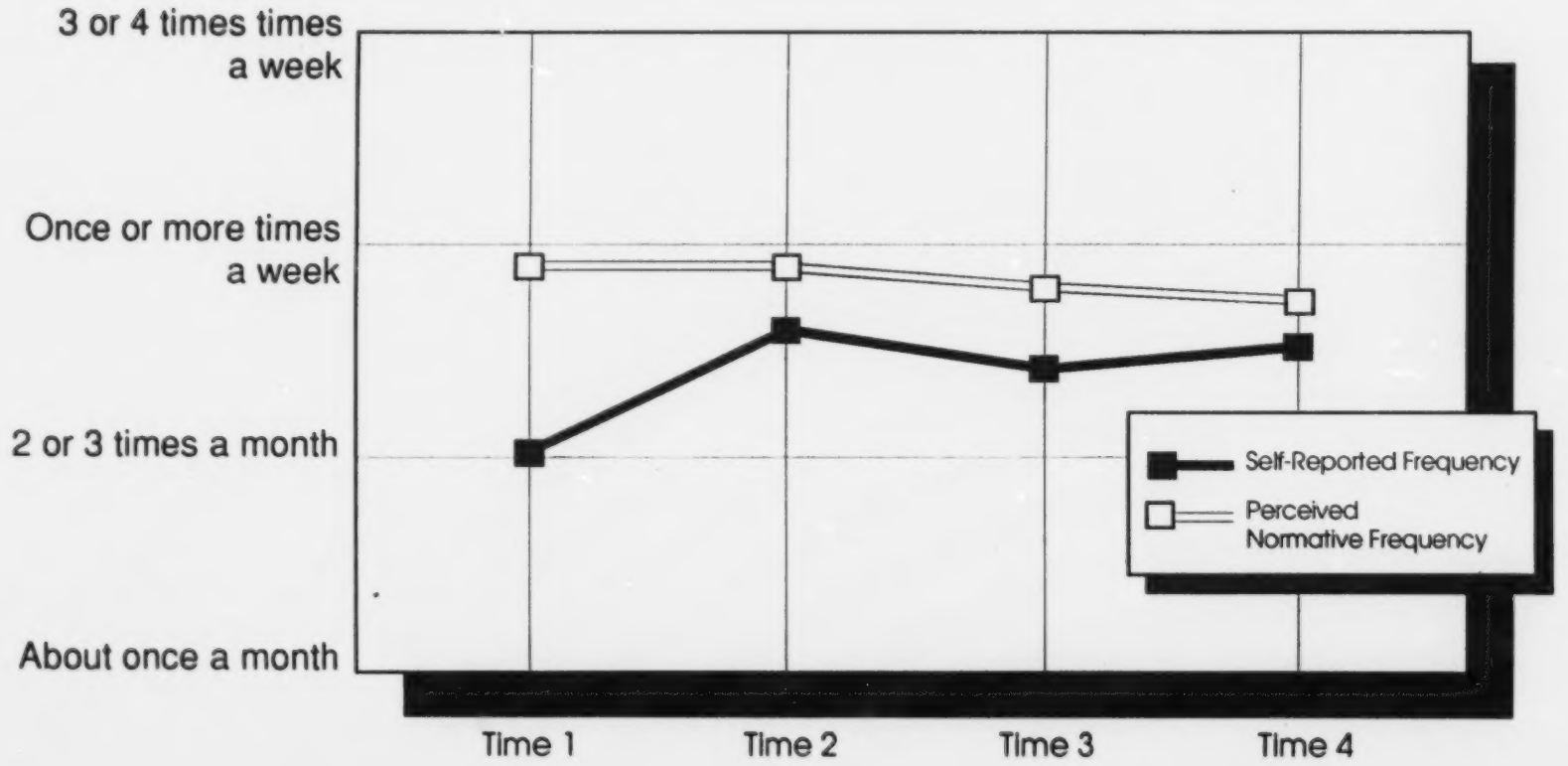

Figure Two